

Amendments to the Claims

Please amend the claims to read as follows.

1. (Currently Amended): A method for administering a reduced pressure treatment to a damaged bone tissue, comprising the steps of:

- (a) providing a cover adapted to cover an area of skin over damaged bone tissue and adapted to maintain reduced pressure on the area of skin;
- (b) providing a seal adapted to seal said cover to tissue surrounding the area of skin;
- (c) providing reduced pressure supply means for connection to a source of suction, said reduced pressure supply means cooperating with said cover to supply said reduced pressure beneath said cover;
- (d) providing a screen between the cover and the area of skin;
- (e) applying a reduced pressure under the cover to the area of skin; and
- (f) maintaining the reduced pressure until new bone tissue has grown at the damaged bone tissue ~~to provide a selected stage of healing.~~

2. (Currently Amended): A method for applying reduced pressure treatment to a damaged bone tissue beneath an area of skin comprising the steps of:

- providing a seal over the area of skin capable of maintaining reduced pressure on the area of skin;
- providing an open cell polymer foam section positioned beneath said seal to overlie the damaged bone tissue such that said reduced pressure is maintained within said foam and applied to the area of skin over the damaged bone tissue;
- ~~providing a flexible tube having an inlet end inserted into said open cell polymer foam section and an outlet end extending from beneath said seal for supplying said reduced pressure; and~~
- maintaining the ~~applied~~ reduced pressure applied to the area of skin over the damaged bone tissue until a new bone tissue has grown at the site of the damaged bone tissue ~~to provide a selected stage of healing.~~

3. (Currently Amended): A method for facilitating the healing of damaged bone tissue comprising the steps of:

providing a vacuum device for creating a reduced pressure on a treatment area including and surrounding an area of skin over the damaged bone tissue; providing a seal operatively associated with said vacuum device for maintaining said reduced pressure on said area of skin over the damaged bone tissue, said seal being applied over the skin and comprising a ~~fluid-impermeable~~ cover; providing a screen for positioning at the damaged bone tissue within the seal for delivering the reduced pressure to the damaged bone tissue; applying a reduced pressure to the damaged bone tissue through the screen; and maintaining the reduced pressure until new bone tissue has grown at the damaged bone tissue ~~to provide a selected stage of healing.~~

4. (Currently Amended): A method of healing a bone defect comprising the steps of:

(a) providing a porous material to an area of skin over a bone defect;

(b) sealing the region about the bone defect and porous material to provide a sealed region in which reduced pressure may be maintained;

(c) applying a reduced pressure to an area of skin over a the sealed region and the bone defect; and

(~~[[b]]d~~) maintaining the reduced pressure until bone tissue has grown at the defect ~~to provide a selected stage of healing.~~

5. (Original) The method according to claim 4 comprising the step of applying an antibiotic to the bone defect.

6. (Original) The method according to claim 5 wherein the step of applying an antibiotic comprises the step of applying antibiotic beads.

7. (Currently Amended): The method according to claim 4 wherein the steps of sealing the region and applying reduced pressure comprise[[s]] the steps of applying a cover

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over the bone defect suitable for maintaining reduced pressure beneath the cover and supplying reduced pressure beneath the cover for application of the reduced pressure to the bone defect.

8. (Original) The method according to claim 7 wherein the step of applying a cover comprises the step of sealing the cover about a periphery of the bone defect.

9. (Canceled).

10. (Canceled).

11. (Canceled).

12. (Currently Amended): A method of treating a bone defect comprising the steps of:

a) applying a reduced pressure to the bone defect, wherein said applying step comprises the steps of:

(i) locating ~~an impermeable cover~~ a flexible sheet over an area of intact skin above the bone defect, ~~said cover~~ the sheet having a suction port;

(ii) sealing the periphery of ~~said impermeable cover~~ the sheet to the periphery of the intact skin above the bone defect; and

(iii) operably connecting said suction port with a vacuum system for producing said reduced pressure; and

(b) maintaining ~~said~~ the reduced pressure until the bone defect has progressed toward a selected stage of healing, the selected stage of healing including formation of neo-osteoid tissue.

13. (Currently Amended): (Currently Amended): A method of treating a bone defect comprising the steps of:

providing a porous material to an area of skin over a bone defect;

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sealing the region about the bone defect and porous material to provide a sealed region in which reduced pressure may be maintained;

applying a reduced pressure to the sealed region and ~~an area of intact skin above~~ the bone defect; and

maintaining ~~said~~ reduced pressure in the sealed region until the bone defect has progressed toward a selected stage of healing, the selected stage of healing including formation of neo-osteoid tissue.

14. (New) The method according to any one of claims 1-4, 7, 12, and 13, wherein the step of maintaining the reduced pressure comprises maintaining a reduced pressure of at least 0.01 atm below atmospheric pressure.

15. (New) The method according to any one of claims 1-4, 7, 12, and 13, wherein the step of maintaining the reduced pressure comprises maintaining a reduced pressure of at least 125 mm Hg below atmospheric pressure.

16. (New) The method according to any one of claims 1-4, 7, 12, and 13, wherein the step of maintaining the reduced pressure comprises maintaining a reduced pressure of between 0.5 to 0.8 atm below atmospheric pressure.

17. (New) The method according to any one of claims 1-4, 7, 12, and 13, wherein the step of maintaining the reduced pressure comprises maintaining a reduced pressure for at least 12 hours.

18. (New) The method according to any one of claims 1-4, 7, 12, and 13, wherein the step of maintaining the reduced pressure comprises maintaining a continuous reduced pressure.

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19. (New) The method according to any one of claims 1-4, 7, 12, and 13, wherein the step of maintaining the reduced pressure comprises applying a cyclically varying reduced pressure.

20. (New) The method according to claim 19, wherein the step of applying cyclically varying pressure comprises providing periods of application and non-application of reduced pressure.

21. (New) The method according to claim 20, wherein the ratio of the period of application to non-application of reduced pressure is between about 1:10 to 10:1.

22. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a porous screen.

23. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a screen sufficiently porous to permit gas flow to the damaged bone tissue.

24. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a porous rigid screen.

25. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a porous semi-rigid screen.

26. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a screen adapted to distribute reduced pressure over the damaged bone tissue.

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27. (New) The method according to claim 26, wherein the step of providing a screen adapted to distribute reduced pressure comprises providing a screen adapted to uniformly apply reduced pressure over the damaged bone tissue.

28. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a screen proximate to and out of contact with the damaged bone tissue.

29. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a porous open cell polymer foam.

30. (New) The method according to claim 1, wherein the step of providing a screen comprises providing a screen comprising polyethylene, polyester, or combinations thereof.

31. (New) The method according to claim 1, wherein the step of providing a screen comprises providing open cell polymer foam comprising synthetic polymer material.

32. (New) The method according to claim 2, wherein the step of providing an open cell polymer foam section comprises providing an open cell polymer foam section sufficiently porous to permit gas flow to the damaged bone tissue.

33. (New) The method according to claim 2, wherein the step of providing an open cell polymer foam section comprises providing an open cell polymer foam section proximate to and out of contact with the damaged bone tissue.

34. (New) The method according to claim 2, wherein the step of providing an open cell polymer foam section comprises providing foam section comprising polyethylene, polyester, or combinations thereof.

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35. (New) The method according to claim 2, wherein the step of providing open cell polymer foam section comprises providing foam section comprising synthetic polymer material.

36. (New) The method according to claim 3, wherein the step of providing a vacuum means comprises providing a vacuum pump.

37. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a porous screen means.

38. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a screen means sufficiently porous to permit gas flow to the damaged bone tissue.

39. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a porous rigid screen means.

40. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a porous semi-rigid screen means.

41. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a screen means adapted to distribute reduced pressure over the damaged bone tissue.

42. (New) The method according to claim 41, wherein the step of providing a screen means adapted to distribute reduced pressure comprises providing a screen means adapted to uniformly apply reduced pressure over the damaged bone tissue.

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43. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a screen means adapted to distribute reduced pressure over the damaged bone tissue.

44. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a screen means proximate to and out of contact with the damaged bone tissue.

45. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a porous open cell polymer foam.

46. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a screen means comprising a synthetic polymer material.

47. (New) The method according to claim 3, wherein the step of providing a screen means comprises providing a screen means comprising polyethylene, polyester, or combinations thereof.

48. (New) The method according to claim 12, comprising the step of providing a porous material at the site of the bone defect.

49. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a material sufficiently porous to permit gas flow to the bone defect.

50. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a rigid porous material.

51. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a semi-rigid porous material.

52. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a material adapted to distribute reduced pressure over the bone defect.

53. (New) The method according to claim 52, wherein the step of providing a material adapted to distribute reduced pressure comprises providing a porous material adapted to uniformly apply reduced pressure over the bone defect.

54. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a porous material proximate to and out of contact with the bone defect.

55. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a porous open cell polymer foam.

56. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a synthetic polymer material.

57. (New) The method according to claim 4 or 48, wherein the step of providing a porous material comprises providing a material comprising polyethylene, polyester, or combinations thereof.

58. (New) The method according to claim 1, wherein the step of providing a cover comprises providing a flexible polymer sheet.

59. (New) The method according to claim 1, wherein the step of providing a cover comprises providing an adhesive cover.

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60. (New) The method according to claim 59, wherein the step of providing the adhesive cover comprises providing a sheet having an adhesive backing.

61. (New) The method according to claim 59, wherein the step of providing the adhesive cover comprises providing a flexible polymer sheet.

62. (New) The method according to claim 7, wherein the step of applying a cover comprises applying a flexible polymer sheet.

63. (New) The method according to claim 7, wherein the step of applying a cover comprises applying an adhesive cover.

64. (New) The method according to claim 63, wherein the step of applying the adhesive cover comprises applying a sheet having an adhesive backing.

65. (New) The method according to claim 63, wherein the step of applying the adhesive cover comprises applying a flexible polymer sheet.

66. (New) The method according to claim 12, wherein the step of locating a flexible sheet comprises applying a sheet having an adhesive backing.